

We claim:

1. (Currently amended) An interlayer for placement on a paved surface,  
consisting of a mixture of ~~comprising a mixture of~~:

aggregate comprised of no more than about 15% by weight natural sand; and

a petroleum based asphalt binder, wherein said interlayer has a Hveem Stability at  
60° C. and 50 gyrations of at least about 22 and a Flexural Beam Fatigue of at  
least about 50,000 cycles at 2000 microstrains, 10 Hz,  $3.0 \pm 2.0\%$  air voids, at 0-  
30° C.

2. (Currently amended) The interlayer of claim 1, wherein said asphalt  
binder is a polymer modified asphalt binder wherein the polymer with which the  
asphalt binder is modified is a polymer that is traditionally used to modify an  
asphalt binder for use in paving surfaces.

3. (Previously presented) The interlayer of claim 1, wherein said  
interlayer is about 0.5 to 2 inches thick on a paved surface.

4. (Previously presented) The interlayer of claim 1, wherein said  
binder is chosen based on the temperature associated with the regional climate.

1           5.       (Previously presented)       The interlayer of claim 1, wherein said  
2       binder is chosen from a Type I binder for Northern Type I climates, a Type II  
3       Binder for Central Type II climates, and a Type III binder for Southern Type III  
4       climates.

1           6.       (Previously presented)       The interlayer of claim 1, wherein said  
2       interlayer is substantially impermeable.

1           7.       (Previously presented)       The interlayer of claim 1, wherein said  
2       aggregate is comprised of no more than about 10% by weight natural sand.

1           8.       (Previously presented)       The interlayer of claim 1, wherein said  
2       aggregate is comprised of no more than about 5% by weight natural sand.